

ABSTRACT OF THE DISCLOSURE

5 A data backup system for use with a server running a storage application that writes and reads data blocks. The system includes a self archiving log structured volume for copying blocks from an active volume while the application is running without contending with the application for access to data blocks. The volume records the result of every write event in a new location in primary storage, forming a chronological log of the state changes the volume undergoes. The volume records in the log the points in time (synch events) when the blocks of the volume are in a consistent state with respect to the application.

10 The system further includes backing storage to store the archived blocks and synch events of the volume. The volume migrates inactive segments of its log to the backing storage and ensures that a volume can be reconstructed from a fixed number of log segments.